



No. 10/618,430
Amdt. dated August 2, 2004
Reply to Office Action of May 3, 2004

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): Arrangement of a burner (2) and a heat exchanger (1), said heat exchanger (1) comprising a plurality of heat exchange elements (3) interconnected to each other with intermediate gaps, said heat exchanger (1) being arranged with an inlet (4') and an outlet (5'), said burner (2) being connected to said inlet (4') to said heat exchanger (1) for providing energy to said heat exchanger (1) by burning a fuel gas, said heat exchanger (1) being arranged, ~~in use~~, for heat transfer from an outer surface of said heat exchange elements (3) to process air as a secondary gas, said burner (2) being arranged to burn said fuel gas inside said heat exchanger (1) ~~characterized in that~~ wherein said burner (2) comprises a burner element, being located inside said heat exchanger (1); said burner element being arranged to provide a preferential direction for transfer of said energy through said heat exchange elements (3), and said heat exchanger (1) is constructed from a high temperature material to allow, ~~in use~~, heat transfer to said secondary gas by radiation of said heat exchange elements (3), said radiation being ~~in a visible~~ radiation range of the spectrum, said heat exchanger having a surface temperature in the range 450 - 1000 °C.

Claim 2 (currently amended): Arrangement according to claim 1, ~~characterized in that~~ wherein said high temperature material comprises a high temperature steel or a high temperature alloy.

Claim 3 (currently amended): Arrangement according to claim 1, ~~characterized in that~~ wherein the ratio of the width of one of said heat exchange elements and the width of one of said intermediate gaps is at least 1:3.

Claim 4 (currently amended): Arrangement according to claim 1, ~~characterized in that~~ wherein said burner (2) is a pressurised burner.

Claim 5 (currently amended): Arrangement according to claim 1 ~~characterized in that~~ wherein said burner (2) is a modulating burner.

Claim 6 (cancelled).

Claim 7 (currently amended): Arrangement according to claim 1 ~~characterized in that~~ wherein a condensation unit (CU) is connected at said outlet (5') of said heat exchanger (1).

Claim 8 (currently amended): Method to be carried out by an arrangement according to claim 1, ~~characterized in that~~ wherein the method comprises:

heating, ~~in use of~~ said outer surface of said heat exchange elements (3) to a high surface temperature to allow heat transfer to said secondary gas by radiation of said heat exchange elements (3), said radiation being ~~in a visible radiation range of the spectrum,~~ said heat exchanger having a surface temperature in the range of 450 - 1000 °C.

Claim 9 (currently amended): Method according to claim 8, ~~characterized in that~~ wherein said high surface temperature is a surface temperature above 450 °C.

Claim 10 (currently amended): Method according to claim 9, ~~characterized in that~~ wherein said surface temperature is in the range of 450 - 1000 °C, ~~preferably in the range of 700 - 800 °C.~~

Claim 11 (previously presented): Air-heating apparatus comprising an arrangement of a burner (2) and a heat exchanger (1) according to claim 1.

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Claim 12 (new): Method according to claim 10, wherein said surface temperature is in the range of 700 - 800 °C.